Pelvic Health of Australian Female Military Personnel: An exploration of key issues and association with occupational performance

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Pelvic Health of Australian Female Military Personnel

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Defence Health Foundation

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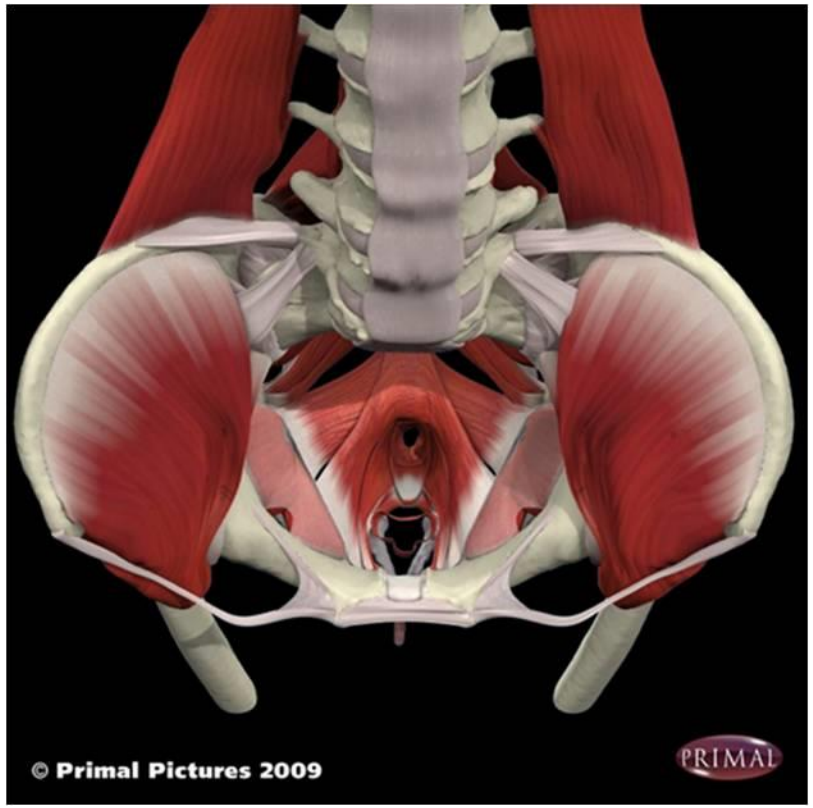
Pelvic Health

Broad term encompassing:

- Bladder function
- Bowel function
- Sexual/Reproductive function
- Anatomical structures



Why pelvic health for Service women?

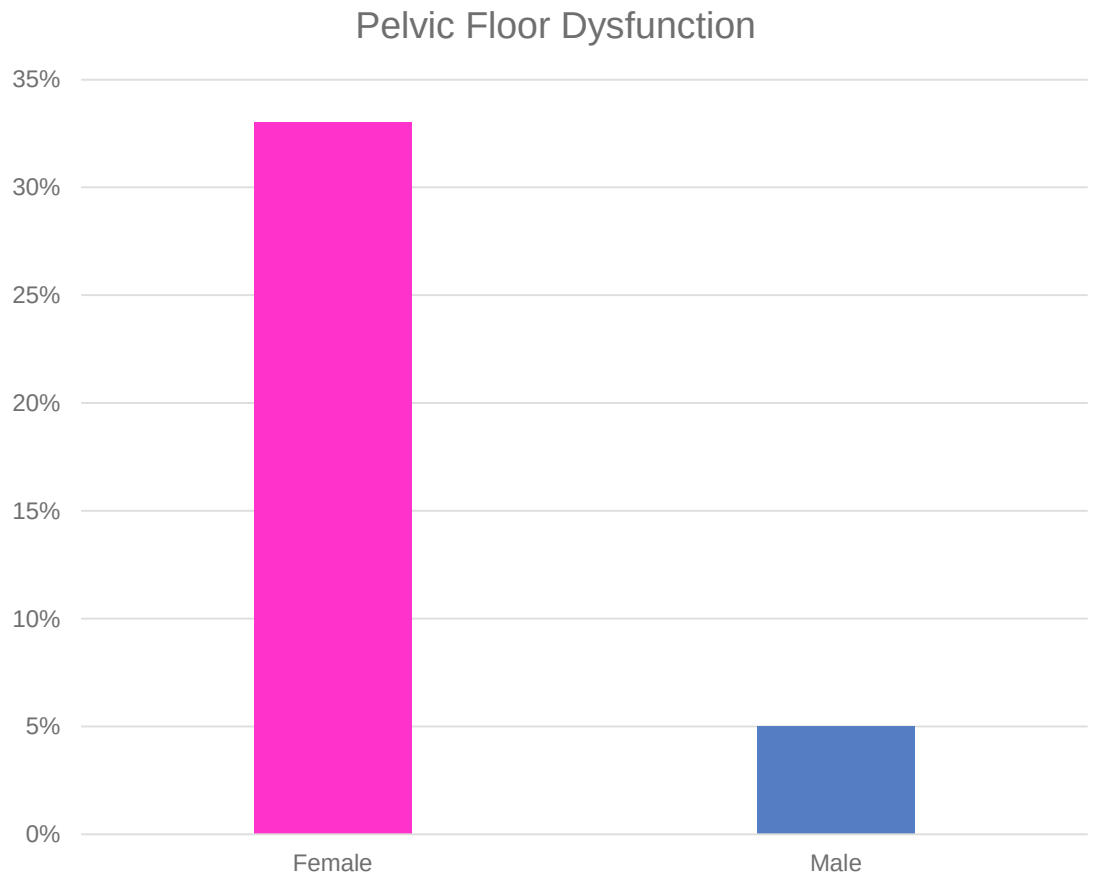
- Percentage of women serving in the Australian Defence Force is increasing
- Diversity of roles now available to women
- Unique health requirements need consideration
- Support needs vary between genders due to differences in genitourinary anatomy and function

Pelvic Floor Dysfunction

Pelvic floor dysfunction is an umbrella term encompassing a wide variety of symptoms, such as urinary incontinence, bladder storage or voiding issues, lower urinary tract infection, pelvic organ prolapse, anorectal dysfunction, sexual dysfunction and pelvic pain

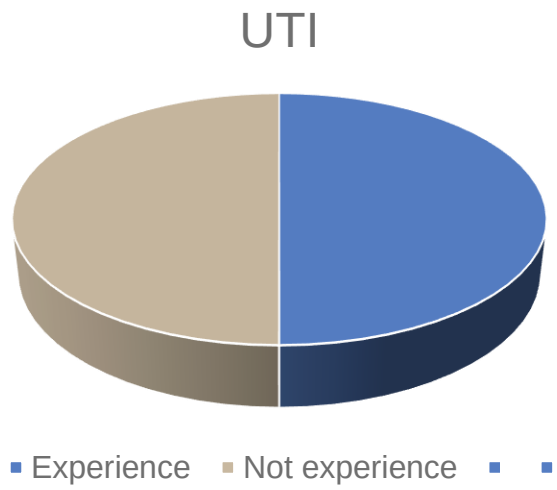
(Haylen et al., 2010)

Pelvic Floor Dysfunction by Gender



(Hawthorne, 2006)

Will experience a UTI by the time they are 24 years



Almost 50% will experience a UTI in their lifetime

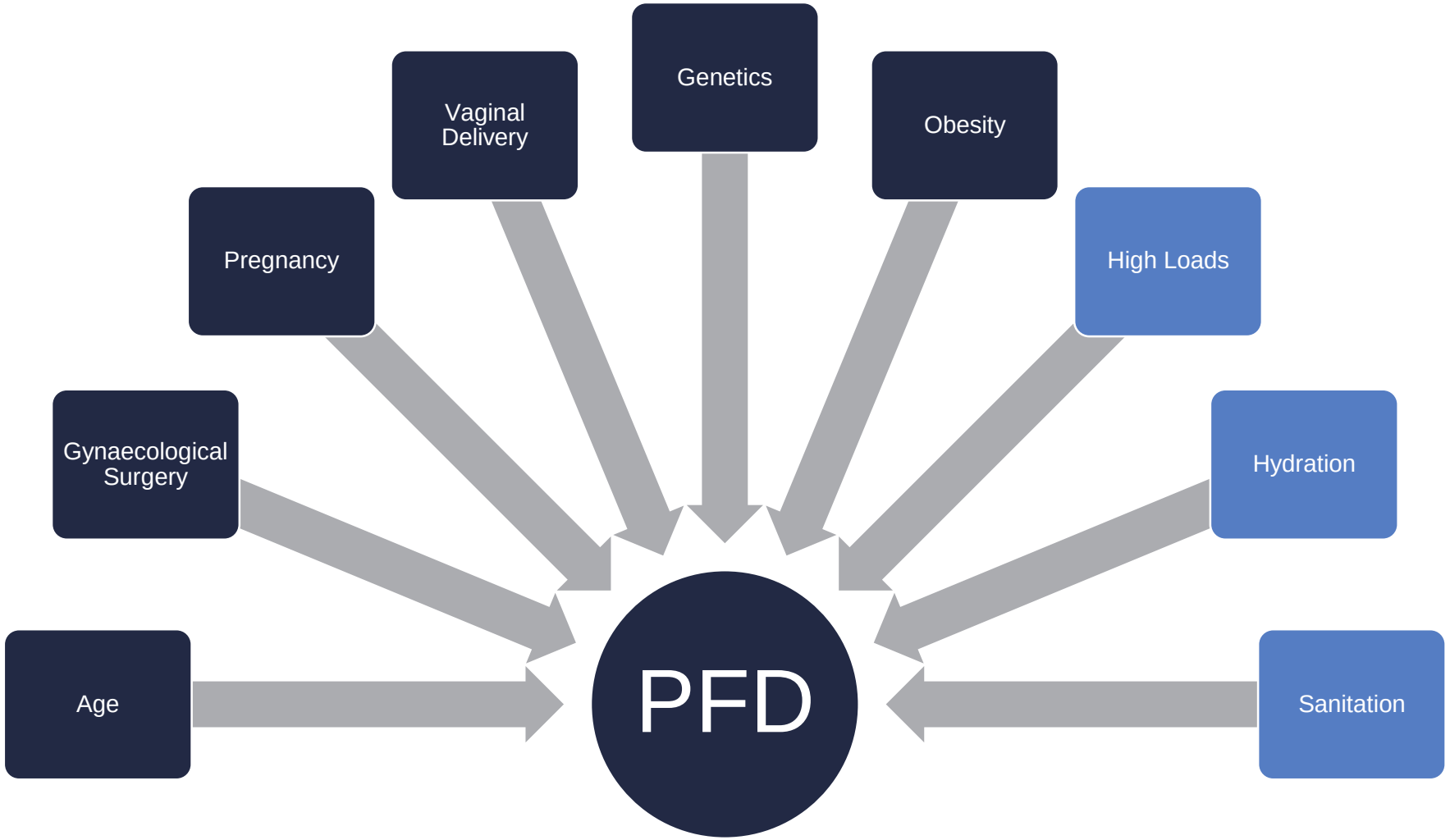
(Foxman, 2002)

Impacts of Occupational Performance

- Modification or reduction of physical activity
- Decreased ability to perform physical tasks
- Poor concentration
- Interruption of tasks
- Modification of work hours and roles
- Reductions in reported quality of life

(Pierce et al., 2016)

Risk Factors



(Fornell et al. 2004; Mckenzie et al., 2016; Nygaard & Shaw, 2016)

High Loads & Pelvic Floor Dysfunction

- Urinary incontinence is common in physically active women (5 – 80%) (Lourenco et al., 2018)
- Prevalence of urinary incontinence is higher in female athletes (19 – 76%) (Teixeira et al., 2018)
- Prevalence in nulliparous athletes 14 – 80% (Almousa & Bandin van Loon, 2019)
- Physically demanding occupational tasks have also been linked with increased symptoms of pelvic floor dysfunction (Woodman et al., 2006, Nygaard et al., 2016)
- 50 – 92% of female athletes had never discussed their symptoms (Almousa & Bandin van Loon, 2019)

Risk Factors for Female Urinary Tract Infections

Anatomical & Physiological

- Shorter urethra & close location of urethra to vagina and anus
- Pregnancy
- Menopause

Genetic

Behavioural

- Bowel habits
- Hydration
- Toilet hygiene/Sanitation conditions
- Sexual habits

Other health conditions e.g. incontinence, POP, neurogenic bladder dysfunction

(Storme et al., 2019)

Potential Implications for Female Military Personnel

- May be at increased risk of pelvic floor dysfunction because of physical demands of their roles
- Many military roles require high levels of physical training & load carriage
  - Combat loads may exceed 45kgs (Orr et al., 2015)
  - Relative loads on female service women may be higher due to differences in body composition (Baran et al., 2018)
- Environmental conditions may contribute to UTI risk
  - Hygiene & sanitation challenges in the field
  - Hydration

Pelvic Floor Dysfunction & Female Military Personnel

Davis et al., 1999	Fischer et al., 1999	Larson & Yavorek, 2007
• Self-administered cross-sectional survey • N = 563 active duty soldiers • 30% experienced UI to an extent it was considered problematic • Risk factors identified: age, parity • Aggravating activities: physical training, field exercises • 1/3 needed to modify their training or duties to manage problem	• Self-administered cross-sectional survey • Active duty Air Force crew • 26% reported UI • Risk factors identified: age, parity • 89% of UI episodes occurred off-duty • 31% episodes whilst on-duty • 18% episodes whilst flying	• N = 116 women completed study • N = 37 completed paratrooper training (all nulliparous) • Paratrooper trainees were more likely to have a stage 2 pelvic organ prolapse & worsening of pelvic organ support post training

Pelvic Health & Female Military Personnel

- Urinary tract infections are common
  - 30.5% of female personnel compared with 3.5% of males

(AFHSC, 2014)

- Females have been shown to be less likely to seek medical advice for pelvic health conditions
  - Confidentiality
  - Embarrassment
  - Limited female specific services

(Ryan-Wegner et al., 2015)

Impact on Occupational Health, Safety & Performance

Common strategies for managing urinary incontinence

- Fluid restriction
- Altered voiding patterns
- Pads
- Tampons/pessaries
- Modifying tasks/roles

(Criner, 2001; Davis et al., 1999; Steele & Yoder, 2013)

RISKS:

- Urinary tract infections
- Dehydration & heat illness
- Impaired performance
- Reduced physical & emotional well-being
- Loss to Service

What about…

- The Australian context
- Contemporary Military roles & settings
- Service comparisons
- Other pelvic health symptoms
- Pelvic health & occupational performance relationships
- Risk factor analysis
- Maintenance & management strategies

Women serving in the Australian Defence Force: an exploration of genitourinary health issues

Survey

Interviews

Defence Health Foundation

Inclusion criteria: biologically female, >18 years, served for >6mths, currently serving or recent veterans (past 2 years)

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Introduction
You are invited to participate in this survey exploring the pelvic health of women in the Australian Defence Force (ADF).

This Participant Information and Consent Statement tells you about the research and the processes involved for participants. Knowing what is involved will help you decide if you want to take part. Please read this information carefully. If you have any questions please contact, Dr Simone O'Shea via the email address provided below.

Your answers will be completely confidential and any personal details which may identify you in any way will not be passed to the Department of Defence or the Department of Veterans' Affairs. Your answers will not in any way affect any pension, benefits or health services which you are entitled to from Defence or DVA, or to which you may become entitled in the future.

You can choose to print this Participant Information and Consent Statement if you would like a copy for your records. Alternatively, you may request a copy from Dr O'Shea.

Brief description of the study:
This survey will gather information from female military personnel about their pelvic health (i.e. bladder and bowel function, reproductive health, pelvic pain etc.), and how they support, maintain, or manage it within their unique work environments and experiences. The study does not aim to explore matters related to sexual or mental health issues. Given that pelvic health may be a personal and private topic, the survey has been set up so that any identifying data, such as IP (internet protocol) addresses are

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[ADF Women: Pelvic Health Survey]

https://survey.au1.qualtrics.com/jfe/form/SV_81RpAp5VmzfJFt3

The survey is online and anonymous

Survey will close Friday 1 November 2019

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Thank you!